

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES**

Appellants: Burghardt et al.)	Examiner: James W. Rogers
)	
Serial No: 10/757,834)	Group Art Unit: 1618
)	
Filed: January 15, 2004)	Deposit Account No: 04-1403
)	
Confirmation No: 5079)	Customer No: 22827
)	
Title: Modified Siloxane Yielding)	
Transferring Benefits from Soft)	
Tissue Products)	

Mailstop Appeal Brief - Patents
Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Post Office Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

Honorable Commissioner:

Appellants submit the following Brief on Appeal in accordance with 37 C.F.R. §
41.37:

1. REAL PARTY IN INTEREST

The real party in interest in this matter is the assignee of record, Kimberly-Clark
Worldwide, Inc.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to the Appellants or the
Appellants' legal representative which will directly affect or be directly affected by or
have a bearing on the Board's decision in the pending appeal.

3. STATUS OF CLAIMS

Claims 1-22 are pending in this application, including independent claims 1 and 13. All the claims are attached hereto in the Claims Appendix.

In the Final Office Action of August 22, 2006, claims 1-7, 9-14 and 17-22 were finally rejected under 35 U.S.C. §102(e). Claims 1-22 were finally rejected under 35 U.S.C. §103(a).

4. STATUS OF AMENDMENTS

To the Appellants' knowledge, all amendments have been entered into the record with the exception of correction of a typographical error involving claim 4, which was incorrectly identified as claim 12 in the application as filed. Appellants believed that an Examiner's amendment was entered to correct this error, but the Final Office Action indicated that the Examiner did not enter an amendment.

5. SUMMARY OF CLAIMED SUBJECT MATTER

The claims are generally directed to paper products, such as facial tissues, that are capable of transferring beneficial chemical compounds to an opposing surface. See, e.g., page 1, lines 11-13.

Independent claim 1, for instance, is directed to a paper product capable of transferring beneficial chemical compounds to an opposing surface. See, e.g., page 2, lines 15-17. The paper product includes a nonwoven web containing pulp fibers. See, e.g., page 2, lines 17-18. A siloxane treatment is applied to at least one surface of the nonwoven web. See, e.g., page 2, lines 18-19. The siloxane treatment includes an amino functional siloxane composition which will bond to the pulp fibers contained in the web. See, e.g., page 2, lines 19-20. Further, the siloxane treatment includes a complex

of a non-amino functional siloxane and a beneficial chemistry agent. See, e.g., page 2, lines 21-22. The beneficial chemistry agent can include a skin wellness composition selected from skin medicinal agents, skin therapeutic agents and antimicrobial agents. See, e.g., page 3, lines 1-3. The non-amino functional siloxane and beneficial chemistry agent complex has a charge attraction to the amino functional siloxane composition. See, e.g., page 2, lines 22-24. When an opposing surface is contacted with the paper product, the complex is configured to be transferred to the opposing surface. See, e.g., page 2, lines 24-26.

Independent claim 13 is directed to a facial tissue capable of transferring beneficial chemical compounds to an opposing surface. See, e.g., page 2, lines 15-17. The facial tissue includes a nonwoven web containing pulp fibers. See, e.g., page 2, lines 17-18. The nonwoven web has a basis weight of from about 4 to about 40 pounds per ream. See, e.g., page 7, line 30 – page 8, line 1. A siloxane treatment is applied to at least one surface of the nonwoven web. See, e.g., page 2, lines 18-19. The siloxane treatment includes an amino functional siloxane composition which will bond to the pulp fibers contained in the web. See, e.g., page 2, lines 19-20. Further, the siloxane treatment includes a complex of a non-amino functional siloxane and a beneficial chemistry agent. See, e.g., page 2, lines 21-22. The beneficial chemistry agent can include a skin wellness composition selected from skin medicinal agents, skin therapeutic agents and antimicrobial agents. See, e.g., page 3, lines 1-3. The non-amino functional siloxane and beneficial chemistry agent complex has a charge attraction to the amino functional siloxane composition. See, e.g., page 2, lines 22-24.

When an opposing surface is contacted with the paper product, the complex is configured to be transferred to the opposing surface. See, e.g., page 2, lines 24-26.

6. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

In the Final Office Action, independent claims 1 and 13 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,054,020 to Goulet et al. Independent claims 1 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over EP Ref. No. 0607796A1 to Floyd. Independent claims 1 and 13 were rejected under 35 U.S.C. § 103(a) as being anticipated by U.S. Patent No. 5,389,204 to Ampulski.¹

7. ARGUMENT

Appellants respectfully submit that the presently pending claims are patentable over the cited references. The presently pending claims are generally directed to paper products, such as facial tissues, that are capable of transferring beneficial chemical compounds to an opposing surface. As defined in claim 1, the paper product includes a nonwoven web that has been treated with a siloxane treatment. In accordance with the present invention, the siloxane treatment includes:

- 1) an amino functional siloxane composition bonded to the pulp fibers contained in the nonwoven web; and
- 2) a complex of a non-amino functional siloxane and at least one beneficial chemistry agent.

¹ The present application is a continuation of application serial number 09/742,666 filed on December 21, 2000. Appellants filed the present continuation application because it was determined after a notice of allowance was issued in the parent application that an inventor had been inadvertently omitted. The present application has **identical claims** to claims previously indicated as being allowable by the Patent Office in considering the parent application. Indeed, although both the Floyd and Ampulski references were cited by the Examiner during prosecution of the parent application, it now appears that the Patent Office has reversed its previous decision that the claims are allowable in view of these references.

The beneficial chemistry agent is particularly defined as a skin wellness composition that is selected from the group consisting of skin medicinal agents, skin therapeutic agents, and antimicrobial agents.

As stated in claim 1, the non-amino functional siloxane and beneficial chemistry agent complex has an attraction to the amino functional siloxane composition that is bonded to the pulp fibers. The complex is configured to be transferred to an opposing surface, such as a user's skin, when the opposing surface is contacted with the paper product.

I. Independent claims 1 and 13 are patentably distinct over U.S. Patent No. 6,054,020 to Goulet et al.

As described above, the present claims require a complex of a non-amino functional siloxane and at least one beneficial chemistry agent, the beneficial chemistry agent selected from the group consisting of skin medicinal agents, skin therapeutic agents, and antimicrobial agents. The non-amino functional siloxane and beneficial chemistry agent complex has an attraction to the amino functional siloxane composition that is bonded to the pulp fibers.

Goulet et al. is directed to a tissue product having delayed moisture penetration. In comparison to the currently pending claims, Goulet et al. simply does not disclose a **complex of a non-amino functional siloxane and at least one beneficial chemistry agent, let alone an attraction between such a complex and an amino functional siloxane composition that is bonded to pulp fibers.** Rather, the examples section of Goulet et al. mentions a "biocide package" as part of an aqueous emulsion. Goulet et al. is completely absent of any additional discussion regarding such a biocide package. Appellants note that a claim is anticipated under 35 U.S. C. § 102 only if each and every

element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. M.P.E.P. § 2131.

Nonetheless, the Examiner indicated in the Final Office Action that such a biocide package meets the limitation of a beneficial chemistry agent because a biocide is an antimicrobial and that a complex was “considered to have formed” despite absolutely no discussion of the formation or existence of such a complex in Goulet et al. The present application explicitly states that “[a]s used herein, a complex refers to a chemical association formed between two compounds which can be, for instance, a covalent bond, an ionic bond or the like.” Page 4, lines 31-33. The mere presence of a biocide package that is part of the aqueous emulsion of Goulet et al. cannot be said to anticipate a complex of a non-amino functional siloxane and at least one beneficial chemistry agent, as required by the presently pending claims. Nor can there be anticipation of an attraction between such a complex and an amino functional siloxane composition that is bonded to pulp fibers. Consequently, Applicants submit that Goulet et al. does not anticipate the currently pending claims.

II. Independent claims 1 and 13 are patentably distinct over EP Ref. No. 0607796A1 to Floyd

As previously stated, the present claims require a complex of a non-amino functional siloxane and at least one beneficial chemistry agent, the beneficial chemistry agent selected from the group consisting of skin medicinal agents, skin therapeutic agents, and antimicrobial agents. This complex has an attraction to the amino functional siloxane composition that is bonded to the pulp fibers such that it is configured to be transferred to an opposing surface, such as a user's skin, when the opposing surface is contacted with the paper product.

As an initial matter, Floyd fails to disclose or suggest the use of a beneficial chemistry agent as defined in the present application. For example, Floyd discloses a medium to render nonwovens soft that contains:

- 1) 45 to 98% by weight of a polyether polysiloxane;
- 2) 1 to 20% by weight of a cationic organopolysiloxane with at least one ammonium group;
- 3) 1 to 20% by weight of an alkylene glycol;
- 4) 0 to 15% by weight of a nonionic surfactant;
- 5) 0 to 10% by weight of an organopolysiloxane;
- 6) 0 to 5% by weight of a water insoluble organopolysiloxane; and
- 7) 0 to 5% by weight of another water insoluble organopolysiloxane.

The polysiloxanes mentioned above are intended to be softeners that render non-wovens soft. Similarly, the paper products of the present invention are treated with at least two siloxanes that soften the product and may soften and smooth the skin of a user. In addition to the siloxanes, however, the claims of the present invention further require a **beneficial chemistry agent** selected from the group consisting of skin medicinal agents, skin therapeutic agents, and antimicrobial agents and **complexed with a non-amino functional siloxane**. The polysiloxanes disclosed in Floyd are not beneficial chemistry agents and do not render obvious the use of a beneficial chemistry agent.

Floyd also states that the medium can contain dyes, preservatives, surfactants, or odor-imparting materials, which are not essential for the properties aimed for. For instance, the surfactant is used to promote the wetting and penetration of the nonwoven

material with or through the inventive medium. Contrary to the present invention, however, none of the above ingredients are beneficial chemistry agents selected from the group consisting of skin medicinal agents, skin therapeutic agents, and antimicrobial agents, as particularly defined in the currently pending claims.

Furthermore, even if a beneficial chemistry agent were present, Floyd fails to disclose or suggest a complex formed between a non-amino functional siloxane and at least one beneficial chemistry agent that is configured to be transferred to an opposing surface when an opposing surface is contacted with the product. The Examiner states in the Final Office Action that a complex was “considered to have formed” despite absolutely no discussion of the formation or existence of such a complex in Floyd. The present application explicitly states that “[a]s used herein, a complex refers to a chemical association formed between two compounds which can be, for instance, a covalent bond, an ionic bond or the like.” Page 4, lines 31-33. The mere presence of various compounds cannot be said to render obvious a complex of a non-amino functional siloxane and at least one beneficial chemistry agent, as required by the presently pending claims.

Without more than a blanket assertion by the Examiner, there also cannot be said to be a teaching or suggestion of an attraction between such a complex and an amino functional siloxane composition that is bonded to pulp fibers and configured to be transferred to an opposing surface when an opposing surface is contacted with the product. Consequently, Appellants submit that the presently pending claims patentably define over Floyd.

III. Independent claims 1 and 13 are patentably distinct over U.S. Patent No. 5,389,204 to Ampulski

Ampulski also fails to disclose or suggest the use of a beneficial chemistry agent. As stated in column 2 of Ampulski, the use of a functional polydimethylsiloxane that is diluted with a miscible nonvolatile inexpensive solvent such as a nonfunctional polysiloxane compound or a mineral oil can obtain softness benefits while using less of the functional polydimethylsiloxane. The composition disclosed in Ampulski can contain:

- 1) a functional polysiloxane compound;
- 2) a nonvolatile diluent such as a nonfunctional polysiloxane or mineral oil;
- 3) a surfactant emulsifier;
- 4) a surfactant; and
- 5) a binder such as starch.

Nowhere does Ampulski disclose the use of a beneficial chemistry agent selected from the group consisting of skin medicinal agents, skin therapeutic agents, and antimicrobial agents, as particularly defined in the currently pending claims. As stated above, the nonfunctional polysiloxane compound or a mineral oil can improve the softness **of the tissue paper**. Furthermore, the surfactant, for example, is used to enhance the tactile perceivable surface smoothness **of the tissue paper** and/or to at least partially offset any reduction of wettability **of the tissue paper** which would result from the incorporation of the polysiloxane. Thus, the surfactant is used to improve the properties of the tissue product as opposed to comprising a skin wellness composition as particularly defined in the currently pending claims.

Further, Ampulski fails to disclose or suggest a complex formed between a non-amino functional siloxane and at least one beneficial chemistry agent that is configured to be transferred to an opposing surface when an opposing surface is contacted with the product. As stated previously, the mere presence of various compounds cannot be said to render obvious a complex of a non-amino functional siloxane and at least one beneficial chemistry agent, as required by the presently pending claims.

Based only upon the unsupported assertion in the Office Action, there also cannot be said to be a teaching or suggestion of an attraction between such a complex and an amino functional siloxane composition that is bonded to pulp fibers and configured to be transferred to an opposing surface when an opposing surface is contacted with the product. Consequently, Appellants submit that the presently pending claims patentably define over Ampulski.

8. CONCLUSION

In conclusion, it is respectfully submitted that the claims are patentably distinct over the prior art of record and that the present application is in complete condition for allowance. As such, Appellants respectfully request issuance of the patent.

Respectfully submitted,

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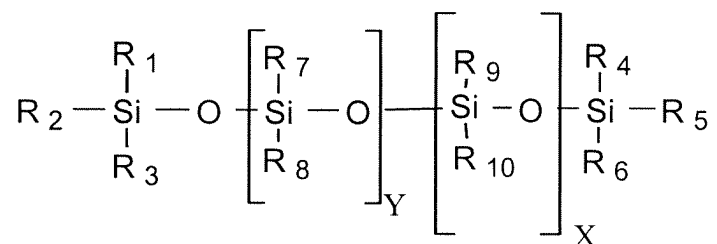
9. CLAIMS APPENDIX

1. (Original) A paper product capable of transferring beneficial chemical compounds to an opposing surface comprising:

a nonwoven web containing pulp fibers, said nonwoven web having a first surface and a second and opposing surface; and

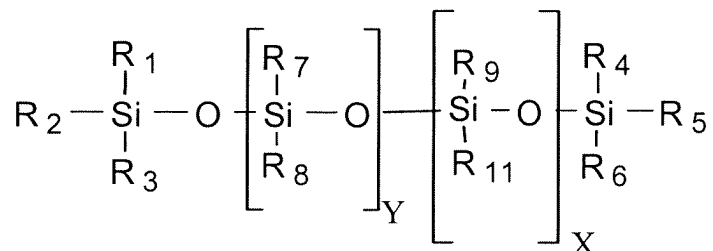
a siloxane treatment applied to at least one surface of said nonwoven web, said siloxane treatment comprising an amino functional siloxane composition bonded to said pulp fibers contained in said web, and a complex of a non-amino functional siloxane and at least one beneficial chemistry agent, the beneficial chemistry agent comprising a skin wellness composition selected from the group consisting of skin medicinal agents, skin therapeutic agents and antimicrobial agents, said non-amino functional siloxane and beneficial chemistry agent complex having an attraction to said amino functional siloxane composition, wherein said complex is configured to be transferred to an opposing surface when said opposing surface is contacted with said paper product.

2. (Original) A paper product as defined in claim 1, wherein said amino functional siloxane composition comprises an amine-modified polysiloxane having the following formula:



wherein X and Y are integers greater than 0 and the mole ratio of X to (X+Y) is from about 0.005 percent to about 25 percent, R₁, R₃, R₄, R₆ - R₉ are alkyl groups, R₂ and R₅ are alkyl groups, hydroxyl groups or alkyl alcohol groups, and R₁₀ comprises an amine group, an imine group or an amide group.

3. (Original) A paper product as defined in claim 2, wherein said amino functional siloxane composition further comprises another modified polysiloxane having the following formula:



wherein X and Y are integers greater than 0 and the mole ratio of X to (X+Y) is from about 0.005 percent to about 25 percent, R₁, R₃, R₄, R₆ - R₉ are alkyl groups, R₂ and R₅ are alkyl groups, hydroxyl groups or alkyl alcohol groups, and R₁₁ comprises an ether, a polyether, an ester, an amine, an imine, an amide, or alkyl and alkenyl analogues thereof.

4. (Previously Presented) A paper product as defined in claim 2, wherein said amino-modified polysiloxane has a viscosity of from about 25 centipoise to about 200,000 centipoise.

5. (Original) A paper product as defined in claim 1, wherein said non-amino functional siloxane comprises a material selected from the group consisting of an alkyl siloxane, a hydroxyl siloxane, and a hydrogen saturated siloxane.

6. (Original) A paper product as defined in claim 1, wherein said siloxane treatment comprises an emulsion.

7. (Original) A paper product as defined in claim 1, wherein said siloxane treatment is printed on to said surface of said nonwoven web.

8. (Original) A paper product as defined in claim 1, further comprising a second beneficial chemistry agent that is bonded to said amino functional siloxane composition.

9. (Original) A paper product as defined in claim 1, wherein said siloxane treatment is applied to said nonwoven web in an amount from about 0.1 percent to about 50 percent by weight.

10. (Original) A paper product as defined in claim 1, wherein said siloxane treatment is applied to said nonwoven web in an amount from about 0.1 percent to about 5.0 percent by weight.

11. (Original) A paper product as defined in claim 1, wherein said beneficial chemistry agent comprises a material selected from the group consisting of an anti-inflammatory compound, a lipid, an inorganic anion, an inorganic cation, a protease inhibitor, a sequestration agent, and mixtures thereof.

12. (Original) A paper product as defined in claim 1, wherein the amino functional siloxane composition is generally hydrophobic.

13. (Original) A facial tissue capable of transferring beneficial chemical compounds to the skin of a user comprising:

a nonwoven web containing pulp fibers, said nonwoven web having a first surface and a second and opposing surface, said nonwoven web having a basis weight of from about 4 to about 40 pounds per ream;

a siloxane treatment applied to at least one surface of said nonwoven web, said siloxane treatment comprising an amino functional siloxane composition bonded to said pulp fibers contained in said web, and a complex of a non-amino functional siloxane and a beneficial chemistry agent, said non-amino functional siloxane and beneficial chemistry agent complex having an attraction to said amino functional siloxane composition, the beneficial chemistry agent comprising a skin wellness composition selected from the group consisting of skin medicinal agents, skin therapeutic agents and antimicrobial agents, wherein said siloxane and beneficial chemistry agent complex is configured to be transferred to the skin of a user when the facial tissue is contacted with the skin.

14. (Original) A facial tissue as defined in claim 13, wherein said non-amino functional siloxane comprises a material selected from the group consisting of an alkyl siloxane, a hydroxyl siloxane, and a hydrogen saturated siloxane.

15. (Original) A facial tissue as defined in claim 13, wherein said non-amino functional siloxane comprises a methyl dimethyl siloxane.

16. (Original) A facial tissue as defined in claim 13, wherein said non-amino

functional siloxane comprises a polydimethyl siloxane.

17. (Original) A facial tissue as defined in claim 13, wherein said facial tissue comprises a plurality of plies, one of said plies comprising said nonwoven web.

18. (Original) A facial tissue as defined in claim 13, wherein said siloxane treatment is printed on to said surface of said nonwoven web.

19. (Original) A facial tissue as defined in claim 13, wherein said siloxane treatment is applied to said nonwoven web in an amount from about 0.1 percent to about 50 percent by weight.

20. (Original) A facial tissue as defined in claim 13, wherein said siloxane treatment is applied to said nonwoven web in an amount from about 0.1 percent to about 5.0 percent by weight.

21. (Original) A facial tissue as defined in claim 13, wherein said beneficial chemistry agent comprises a material selected from the group consisting of an anti-inflammatory compound, a lipid, an inorganic anion, an inorganic cation, a protease inhibitor, a sequestration agent, and mixtures thereof.

22. (Original) A facial tissue as defined in claim 13, wherein the amino functional siloxane composition is generally hydrophobic.

10. EVIDENCE APPENDIX

None

11. RELATED PROCEEDINGS APPENDIX

None